9.0 COMPLIANCE DEMONSTRATION

9.1 OBJECTIVE

In order to document continuous compliance pursuant to the Clean Air Act Amendments, this section contains the facility monitoring, recordkeeping, and reporting provisions required for major stationary sources. This plan will establish compliance with all applicable state and federal rules and regulations, with the exception of non-applicable rules and regulations as listed in the permit application section 5.0 on regulatory applicability. Included in this section will be compliance demonstration for facility-wide emissions, specific emission unit limits and standards, such as NSPS requirements, and other federal requirements.

This section will cover the permit requirements of a Tier I Operating Permit and the appropriate compliance demonstration methods. Table 9.1-1 is the compliance plan for facility-wide requirements. Table 9.1-2 is the compliance plan for specific emission unit requirements. Table 9.1-3 is the compliance plan for other federal requirements. Note that CAM was discussed in section 5.6.3.

Teton Sales certifies that its facility in Caldwell, Idaho is in compliance with the identified applicable requirements of the Federal and State Clean Air Acts. Furthermore, Teton Sales will continue to comply with all applicable regulatory requirements. Compliance certifications during the permit term will be submitted annually or more frequently if required by the underlying applicable requirement or by the DEQ.

Table 9.1-1 Compliance Demonstration for Facility-wide Requirements

TETON SALES COMPANY Compliance Plan for Facility Wide Requirements				
Facility-Wide Requirement	**Requirement/Citation**	**Monitoring and Recordkeeping**	**Status**	**Schedule for Compliance**
Fugitive Particulate Matter	Facility-wide requirement states that all reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651. IDAPA 58.01.01.322.06, 07, 08.	Facility-wide requirement states that the permittee is required to monitor and maintain records of the frequency and the methods used by the facility to reasonably control fugitive particulate emissions. Facility-wide requirement requires that the permittee maintain a record of all fugitive dust complaints received. Facility-wide requirement requires that the permittee conduct a quarterly facility-wide inspection of potential sources of fugitive emissions to prove effectiveness.	Teton Sales is currently in compliance with all applicable fugitive particulate matter requirements.	Teton Sales has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.
Control of Odors	Facility-wide requirement and IDAPA 58.01.01.775, 776 state that: *"No person shall allow, suffer, cause or permit the emission of odorous gases, liquids or solids to the atmosphere in such quantities as to cause air pollution."* This condition is currently considered federally enforceable until such time it is removed from the SIP. IDAPA 58.01.01.322.06, 07.	Facility-wide requirement requires the permittee to maintain records of all odor complaints received. If the complaint has merit, the permittee is required to take appropriate corrective action as expeditiously as practicable.	Teton Sales is currently in compliance with all applicable odor requirements.	Teton Sales has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.

TETON SALES COMPANY

Compliance Plan for Facility Wide Requirements

Facility-Wide Requirement	Requirement/Citation	Monitoring and Recordkeeping	Status	Schedule for Compliance
Visible Emissions	IDAPA 58.01.01.625 and Facility-wide requirement state that *"(No) person shall discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than twenty percent (20%) opacity as determined . . ."* by IDAPA 58.01.01.625. IDAPA 58.01.01.322.06, 07, 08.	Teton Sales shall conduct monthly facility-wide inspections of potential sources of VEs during daylight hours and under normal operating conditions. The VE inspection shall consist of a see/no see evaluation for each potential source. If any VEs are present from any point Teton Sales will take corrective action or perform a Method 9 in accordance with IDAPA 58.01.01.625. A minimum of 30 observations shall be conducted during the opacity test. If opacity is determined to be greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, Teton Sales will take corrective action and report the exceedance in its annual compliance certification and in accordance with the excess emissions rules in IDAPA 58.01.01.130-136.	Teton Sales is currently in compliance with all applicable visible emission requirements.	Teton Sales has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.
Excess Emissions	Facility-wide requirement requires that the permittee comply with the requirements of IDAPA 58.01.01.130-136 for startup, shutdown, scheduled maintenance, safety measures, upset, and breakdowns. IDAPA 58.01.01.322.08.b	Failure to prepare or file procedures pursuant to sections 133.02 and 134.04 is not a violation of the *Rules* in and of itself, as stated in subsections 133.03.a and 134.06.b. Therefore, since the permittee has the option to follow the procedures in subsections 133.02, 133.03, 134.04, and 134.05; the subsections are not considered applicable requirements for the purpose of this permit and are not included as such. See Section 7.0 in this application.	Teton Sales is currently in compliance with all applicable excess emission requirements.	Teton Sales has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.

TETON SALES COMPANY

Compliance Plan for Facility Wide Requirements

Facility-Wide Requirement	Requirement/Citation	Monitoring and Recordkeeping	Status	Schedule for Compliance
Open Burning	Facility-wide requirement. IDAPA 58.01.01.600-616	All open burning will be done in accordance with IDAPA 58.01.01.600-616.	Teton Sales is currently in compliance with all applicable open burning requirements.	Teton Sales has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.
Renovation/Demolition	The permittee shall comply with all applicable portions of 40 CFR 61, Subpart M when conducting and renovation or demolition activities at the facility.	All monitoring and recordkeeping shall comply with 40 CFR 61, Subpart M.	Currently there are no projects or circumstances existing at the facility that would subject Teton Sales to these provisions; however, Teton Sales may use these provisions in the future if the circumstances arise.	Teton Sales has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.
Chemical Accident Prevention	An stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, shall comply with the requirements of the Chemical Accident Prevention Provisions at 40 CFR 68 no later than the latest of the following dates: *Three years after the date on which a regulated substance present above a threshold quantity is first listed under 40 CFR 68.130. *The date on which a regulated substance is first present above a threshold quantity in a process. 40 CFR 68.10 (a)	All monitoring and recordkeeping shall comply with 40 CFR 68.	Currently there are no projects or circumstances existing at the facility that would subject Teton Sales to these provisions; however, Teton Sales may use these provisions in the future if the circumstances arise.	Teton Sales has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.

TETON SALES COMPANY

Compliance Plan for Facility Wide Requirements

Facility-Wide Requirement	Requirement/Citation	Monitoring and Recordkeeping	Status	Schedule for Compliance
Test Methods	If testing is required, the permittee shall use the test methods listed below to measure the pollutant emissions. PM – EPA Method 5 PM_{10} – EPA Method 201.a and 202 NO_X – EPA Method 7 SO_2 – EPA Method 6 CO – EPA Method 10 VOC – EPA Method 25 Opacity – EPA Method 9 IDAPA 58.01.01.322.01	All monitoring and recordkeeping shall comply with the appropriate EPA Method.	Currently there are no projects or circumstances existing at the facility that would subject Teton Sales to these provisions; however, Teton Sales may use these provisions in the future if the circumstances arise.	Teton Sales has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.
Compliance Testing	If testing is required, the permittee shall provide notice of intent to test to the Department at least 15 days prior to the scheduled test or shorter time period as provided in a permit, consent decree, or by Department approval. IDAPA 58.01.01.157 IDAPA 58.01.01.322.06, 08.a	Within 30 days following the date in which a compliance test required by this permit is concluded, the permittee shall submit a compliance test report to the Department for the respective test. The compliance report shall include all process operating data collected during the test period as well as the test results, raw data, and associated documentation, including any approved test protocol.	Currently there are no projects or circumstances existing at the facility that would subject Teton Sales to these provisions; however, Teton Sales may use these provisions in the future if the circumstances arise.	Teton Sales has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.
Fuel Burning Equipment	The permittee shall not discharge to the atmosphere from any fuel burning equipment particulate matter in excess of 0.015 gr/dscf of effluent gas correct to 3% O_2 by volume gas. IDAPA 58.01.01.676, 677.	All monitoring and recordkeeping for fuel burning equipment will be done in accordance with IDAPA 58.01.01.676, 677.	Teton Sales is currently in compliance with all applicable open burning requirements.	Teton Sales has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.

TETON SALES COMPANY

Compliance Plan for Facility Wide Requirements

Facility-Wide Requirement	Requirement/Citation	Monitoring and Recordkeeping	Status	Schedule for Compliance
Recycling and Emissions Reductions	The permittee shall comply with applicable standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, Recycling and Emissions Reduction.	All monitoring and recordkeeping shall comply with 40 CFR 82, Subpart F.	Currently there are no projects or circumstances existing at the facility that would subject Teton Sales to these provisions; however, Teton Sales may use these provisions in the future if the circumstances arise.	Teton Sales has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.
Criteria Emission Limits	Emission limits (T/yr): SOx – 0.003 NOx – 0.52 PM-10 – 1.51 CO – 0.44 VOC – 371.3 IDAPA 58.01.01.322.01	Emission limits will be satisfied in accordance with IDAPA 58.01.01.322.01.	Teton Sales is currently in compliance with all applicable emission limit requirements.	Teton Sales has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.
Monitoring and Recordkeeping Requirements	The permittee shall maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of this operating permit. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application. IDAPA 58.01.01.322.01	Emission limits will be satisfied in accordance with IDAPA 58.01.01.322.07.	Teton Sales is currently in compliance with all applicable monitoring and recordkeeping requirements.	Teton Sales has demonstrated compliance with the facility-wide requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.

Table 9.1-2 Compliance Demonstration for Specific Emission Units

TETON SALES COMPANY COMPLIANCE PLAN FOR SPECIFIC EMISSION UNITS				
Affected Emission Unit	**Applicable Requirements**	**Compliance Demonstration Method**	**Status**	**Schedule for Compliance**
Door Spray Booth	Particulate matter filters – minimum PM capture efficiency of 99%. IDAPA 58.01.01.322.01	Teton Sales installed a Chemco Paint Arrestor Pad filtration system that is guaranteed to have an average paint removal efficiency of 99%.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the PM capture efficiency requirement and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Filtration System Pressure Drop Monitoring Equipment IDAPA 58.01.01.322.06	Teton Sales has installed, calibrated, maintained and operates in accordance with the manufacturers specifications, pressure drop monitoring equipment to monitor the pressure drop of the filtration system.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the filtration system pressure drop monitoring equipment requirement and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Filtration System Pressure Drop Recordkeeping IDAPA 58.01.01.322.06	The pressure differential shall be recorded once per day while the Spray Booth is operating normally.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the filtration system pressure drop recordkeeping requirements and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.

TETON SALES COMPANY **COMPLIANCE PLAN FOR SPECIFIC EMISSION UNITS**				
Affected Emission Unit	**Applicable Requirements**	**Compliance Demonstration Method**	**Status**	**Schedule for Compliance**
	Filtration System Pressure Drop Operating Range IDAPA 58.01.01.322.01 IDAPA 58.01.01.322.06, 07	Teton Sales has determined the appropriate pressure drop range is -0.05 to 1.02 inches of water column.	The range determined was based on the systems physical characteristics, the airflow through the system, and the particulate matter filter manufacturer specifications and recommendations. Compliance is demonstrated.	Teton Sales has demonstrated compliance with the filtration system pressure drop operating range requirements and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	O & M Manual Requirements IDAPA 58.01.01.322.01	Teton Sales has developed an O & M Manual for the PM filtration system that describes the procedures that will be followed to comply with the system pressure drop operating range and process weight calculations.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the O & M Manual requirements and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Throughput Limits: Paint Coating – 118,800 gal/yr IDAPA 58.01.01.322.01	Monitor and record throughput hourly and daily.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the throughput limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Hours of Operation Limits: Spray Booth – 6,600 hrs/yr IDAPA 58.01.01.322.01	Document daily the hours of operation.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the hours of operation limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Process Weight: PM Emissions shall not exceed 1.0 lb/hr. IDAPA 58.01.01.700, 701	See process weight calculations in Section 6.0 of this application.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the process weight limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.

TETON SALES COMPANY COMPLIANCE PLAN FOR SPECIFIC EMISSION UNITS				
Affected Emission Unit	**Applicable Requirements**	**Compliance Demonstration Method**	**Status**	**Schedule for Compliance**
	Opacity: 20% for no more than three minutes in any 60-minute period. IDAPA 58.01.01.625 IDAPA 58.01.01.322.01	Conduct a 10-minute VEO on the Spray Booth once per month, during daylight hours and during normal operating conditions. If any VEs are present then conduct a VEO in accordance with IDAPA 58.01.01.625.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the opacity limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
518 Kit Coating Operations	Hours of Operation Limits: 6,600 hr/yr IDAPA 58.01.01.322.01	Document daily the hours of operation.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the hours of operation limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Coatings Throughput Limits (gal/yr): Roll Coater # 2 – 11,999 Fan Coater # 5 – 42,306 IDAPA 58.01.01.322.01	Measure and document daily coatings throughput.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the throughput limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Process Weight (Spray Booth): PM Emissions shall not exceed 1.0 lb/hr. IDAPA 58.01.01.700, 701	See process weight calculations in Section 6.0 of this application.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the process weight limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.

TETON SALES COMPANY

COMPLIANCE PLAN FOR SPECIFIC EMISSION UNITS

Affected Emission Unit	Applicable Requirements	Compliance Demonstration Method	Status	Schedule for Compliance
	Opacity: 20% for no more than three minutes in any 60-minute period. IDAPA 58.01.01.625 IDAPA 58.01.01.322.01	Teton Sales shall conduct monthly facility-wide inspections of potential sources of VEs during daylight hours and under normal operating conditions. The VE inspection shall consist of a see/no see evaluation for each potential source. If any VEs are present from any point Teton Sales will take corrective action or perform a Method 9 in accordance with IDAPA 58.01.01.625. A minimum of 30 observations shall be conducted during the opacity test. If opacity is determined to be greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, Teton Sales will take corrective action and report the exceedance in its annual compliance certification and in accordance with the excess emissions rules in IDAPA 58.01.01.130-136. IDAPA 58.01.01.625.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the opacity limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Fuel Throughputs (Natural Gas): Oven Heaters 1 – 4: 3.6 MMscf/yr Space Heaters 1 – 3: 1.9 MMscf/yr IDAPA 58.01.01.322.01	Measure and document daily coatings throughput.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the fuel throughput limits and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Grain loading: Corrected to 3 percent oxygen IDAPA 58.01.01.676	See grain loading calculations in Section 6.0 in this application.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the grain loading standards and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.

TETON SALES COMPANY

COMPLIANCE PLAN FOR SPECIFIC EMISSION UNITS

Affected Emission Unit	Applicable Requirements	Compliance Demonstration Method	Status	Schedule for Compliance
604 Kit Coating Operations	Hours of Operation Limits: 6,600 hr/yr IDAPA 58.01.01.322.01	Document daily the hours of operation.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the hours of operation limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Coatings Throughput Limits (gal/yr): Roll Coater # 1 – 11,999 Fan Coater # 1 – 42,306 Fan Coater # 2 – 47,058 Fan Coater # 3 – 29,700 Fan Coater # 4 – 47,058 Printer # 1 – 2,732 Printer # 2 – 5,465 IDAPA 58.01.01.322.01	Measure and document daily coatings throughput.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the throughput limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.

TETON SALES COMPANY

COMPLIANCE PLAN FOR SPECIFIC EMISSION UNITS

Affected Emission Unit	Applicable Requirements	Compliance Demonstration Method	Status	Schedule for Compliance
	Opacity: 20% for no more than three minutes in any 60-minute period. IDAPA 58.01.01.625 IDAPA 58.01.01.322.01	Teton Sales shall conduct monthly facility-wide inspections of potential sources of VEs during daylight hours and under normal operating conditions. The VE inspection shall consist of a see/no see evaluation for each potential source. If any VEs are present from any point Teton Sales will take corrective action or perform a Method 9 in accordance with IDAPA 58.01.01.625. A minimum of 30 observations shall be conducted during the opacity test. If opacity is determined to be greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, Teton Sales will take corrective action and report the exceedance in its annual compliance certification and in accordance with the excess emissions rules in IDAPA 58.01.01.130-136. IDAPA 58.01.01.625.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the opacity limit and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Fuel Throughputs (Natural Gas): Oven Heaters 1 – 4: 3.6 MMscf/yr Space Heaters 1 – 3: 1.3 MMscf/yr IDAPA 58.01.01.322.01	Measure and document daily coatings throughput.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the fuel throughput limits and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.
	Grain loading: Corrected to 3 percent oxygen IDAPA 58.01.01.676	See grain loading calculations in Section 6.0 in this application.	Compliance is demonstrated.	Teton Sales has demonstrated compliance with the grain loading standards and will be in compliance at the time the Tier I is issued and will remain in compliance the remainder of the Tier I OP term.

Table 9.1-3 Compliance Demonstration for Other Federal Requirements

TETON SALES COMPLIANCE PLAN FOR OTHER FEDERAL REQUIREMENTS				
Federal Requirement	**Applicable Requirements**	**Compliance Demonstration Method**	**Status**	**Schedule for Compliance**
Compliance Assurance Monitoring (CAM)	40 CFR 64	See sections 5.6.2 and 5.6.3 for discussion of 40 CFR 64 applicability and CAM plan.	Teton Sales has submitted a CAM plan to demonstrate compliance with 40 CFR 64.	Teton Sales has demonstrated compliance with the federal requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.
Renovation/Demolition	40 CFR 61, Subpart M (Asbestos)	Teton Sales will comply with all applicable portions of 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.	Currently Teton Sales is not conducting any renovation or demolition. Any future renovation/demolition will comply with 40 CFR 61, Subpart M (Asbestos).	Teton Sales has demonstrated compliance with the federal requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.
Chemical Accident Prevention Provision	40 CFR 68	Teton Sales doesn't operate with or store any substances listed in 40 CFR 68.130. No compliance demonstration needed.	Teton Sales does not currently possess chemicals listed in 40 CFR 68.130 at this time. In the future if the facility becomes subject to this rule it will comply with the provisions in a timely manner.	Teton Sales has demonstrated compliance with the federal requirement and will be in compliance at the time the Tier I is issued. Teton Sales will then remain in compliance the remainder of the Tier I OP term.

TETON SALES

COMPLIANCE PLAN FOR OTHER FEDERAL REQUIREMENTS

Federal Requirement	Applicable Requirements	Compliance Demonstration Method	Status	Schedule for Compliance
Maximum Achievable Control Technology (MACT)	40 CFR 63, Subpart QQQQ	See section 5.6.1. Teton Sales plans to reduce facility-wide HAPs emissions by approximately 33% by decreasing the HAPs content in the coatings.	Teton Sales is currently working with IDEQ and EPA to meet the requirements of the MACT.	Teton Sales is in the process of demonstrating compliance with the federal requirement and will be in compliance by the compliance date of May 28, 2006. Teton Sales will then remain in compliance the remainder of the Tier I OP term.
New Applicable Requirements	General Requirements	Not applicable	Teton Sales is not aware of any new applicable requirements that will become effective during the operating permit term. However, should new requirements become applicable during the term of the permit, then Teton Sales will comply with the new requirements and use the appropriate test methods.	Teton Sales will demonstrate compliance with future requirements. Teton Sales will then remain in compliance the remainder of the Tier I OP term.

9.2 CERTIFICATION

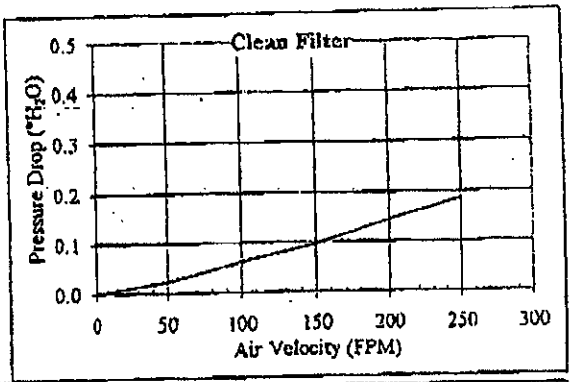
I certify this compliance plan and that the stationary source will comply in a timely manner with any new applicable requirements that become effective during the operating permit term.

X _____
Signature of Responsible Official

PAINT ARRESTANCE FILTER TEST REPORT

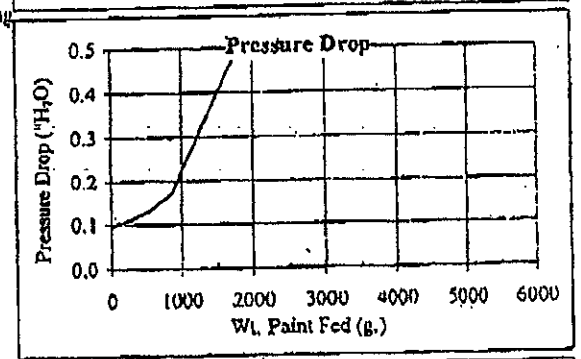
Spray Removal Efficiency & Paint Holding Capacity

Tested for:	Chemco Mfg. Co.
Filter Mfr.:	Chemco Mfg. Co.
Filter Name/Model:	Chem Loft
Report#./Test#	R 169 T 231
Report Date:	Oct. 30, 1998



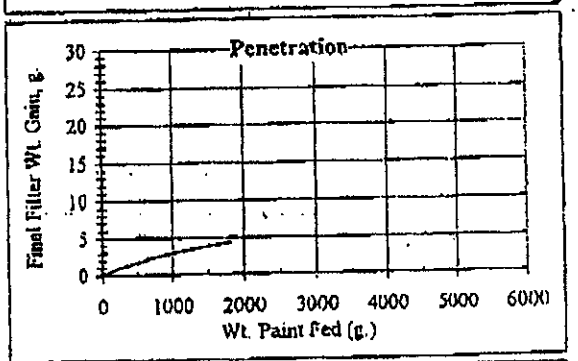
Test Information

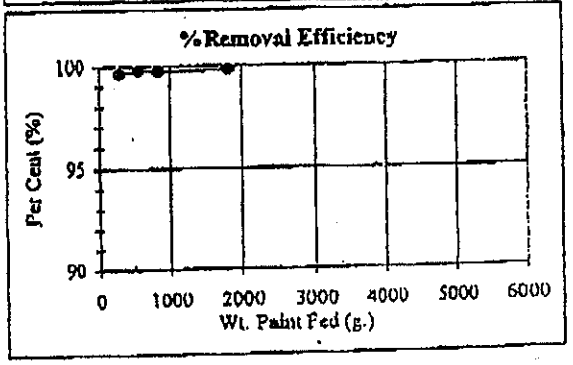
FILTER DESCRIPTION (20" x 20" pad):
[redacted] poly foam pad, 1"dense foam on 1/2" very dense foam backing
PAINT DESCRIPTION:
[redacted] High Solids Baking Enamel (S.W. Permaclad 2400, red)
PAINT SPRAY METHOD
[redacted] Conventional Air Gun at 40 PSI
SPRAY FEED RATE:
[redacted] 139 gr./min. 130 cc./min.
AIR VELOCITY:
[redacted] 150 FPM



Test Results

INITIAL PRESSURE DROP of Clean Test Filter
[redacted] 0.10 in. water
FINAL PRESSURE DROP of Loaded Test Filter
[redacted] 0.51 in. water
WEIGHT GAIN on TEST FILTER & Test Frame Trough
[redacted] 1436 grams
PAINT HOLDING CAPACITY of TEST FILTER
[redacted] 1410 grams = 3.1 lbs.
PAINT RUN-OFF
[redacted] 26 grams
WEIGHT GAIN - FINAL FILTER
[redacted] 4.4 grams = PENETRATION
AVERAGE REMOVAL EFFICIENCY of TEST FILTER
[redacted] 99.69 %





Test Engineer: P. Tuzinski
Supervising Engineer: K. C. Kwok, Ph.D.

LMS Technologies, Inc.
4570 West 77th St., Suite 102; Edina, MN 55435
Tel.: (612) 832-5353
Fax: (612) 832-5354

Air Filter Testing Laboratories, Inc.

4632 Old LaGrange Road • Crestwood, Kentucky 40014 • Phone (502) 222-5720

REPORT NO. 4709
TEST NO. 2

PAINT ARRESTOR PAD PERFORMANCE TEST

TEST REQUESTED BY: CHEMCO
MANUFACTURER: CHEMCO
PRODUCT NAME: PAINT ARRESTOR PAD
DOW LABORATORY PROCURED TEST SAMPLE: FURNISHED BY MANUFACTURER
MODEL NO.: H1 SOLID F2 DIMENSIONS: 20IN. H 20IN. W 2IN. L
PRODUCT DESCRIPTION: GLASS FIBER & POLYESTER WHIT'S WHIT

TEST CONDITIONS:
TEST AIR FLOW RATE 150 FPM
PAINT APPLICATION RATE 1 QT. / 20 MIN.
DESCRIPTION OF PAINT USED HIGH SOLIDS STEELCASE

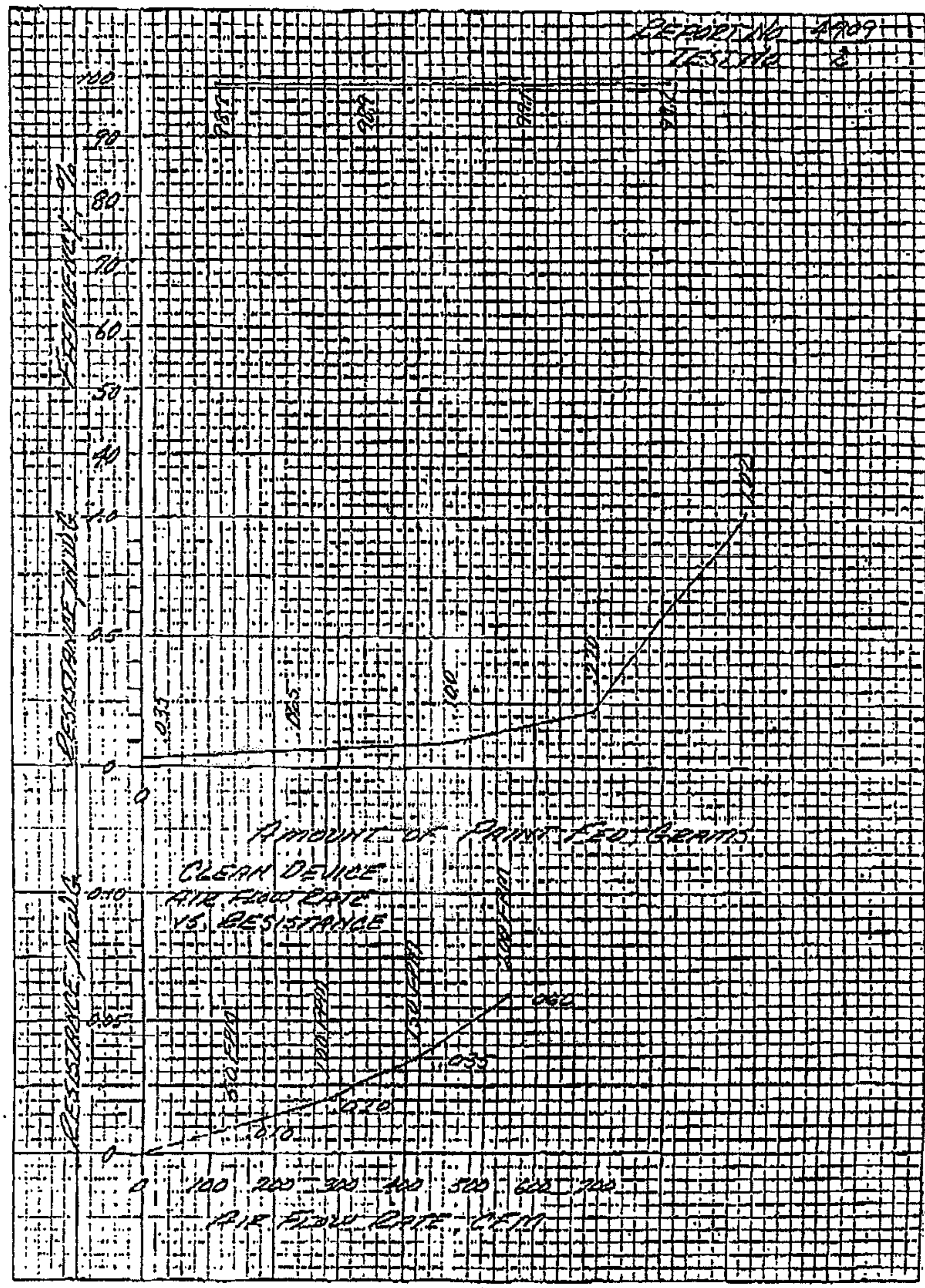
RESULTS:
WEIGHT GAIN PAINT ARRESTOR PAD 2294.2 GM.
FINAL ARRESTANCE FILTERS WEIGHT GAIN 24.22 GM.
TOTAL WEIGHT PAINT FED (DRY BASES) 2318.42 GM.
FINAL RESISTANCE PAINT LOADED FILTER 1.02 IN. W.G.
PERFORMANCE TO CHANGE OUT RESISTANCE — IN. W.G.
AVERAGE PAINT REMOVAL EFFICIENCY 99.0 %
PAINT HOLDING CAPACITY — GM. OR — LBS.

DATE 2-15-1988

ENGINEERING APPROVAL David J. Murphy Jr.

STATE OF KENTUCKY
DAVID J. MURPHY JR.
6035
REGISTERED
PROFESSIONAL ENGINEER

HI SOLIDS 2



REPORT NO. 4909
TEST NO. 2
EFFICIENCY %
RESISTANCE IN W.G.
AMOUNT OF PAINT FED GRAMS
CLEAN DEVICE
AIR FLOW RATE
VS. RESISTANCE
RESISTANCE IN W.G.
AIR FLOW RATE, CFM
0 100 200 300 400 500 600 700

Paint Arrestor Test HS II

DATE: _____ TEST BY: _____ TEST #

PA DEVICE

MODEL #2 MANUFACTURER

DESCRIPTION GLASS FIBER & POLYESTER WHT & WHT.

KNIFE

DIRECTION

OTHER SPECIFICATION

PAINT PRODUCT

PAINT TYPE HIGH SOLIDS STEELCASE Fed Spec.

MANUFACTURER Date Rec'd

VISCOSITY Sol. S

PAINT COLOR Total Soli

TIME INCREMENT START	STOP	RESISTANCE OF DEVICE INIT.	FINAL	PAINT ARRESTOR DEVICE WEIGHTS INITIAL	FINAL	GAIN, g	GAIN, lb	ABSOLUTE FILTER WEIGHTS INITIAL	FINAL	GAIN, g	TOTAL WEIGH P.A. + ABSOL
QTS.	1	.035	.065	10870.8	13165.0	2294.2		48.26	55.83	2.57	
	2	.065	.100						62.45	6.62	
	3	.100	.220			24.22			67.84	5.39	
	4	.220	1.020						72.48	4.64	
						2318.42					
					÷4					24.22	
						579.6					

TEST CONDITIONS

AIR VELOCITY 150 FPM @ _____ IN.S.P. _____

FLUID FLOW RATE ___ OZ/MIN @ _____ PSI 9

GUN DIST _____ FT. SPRAY NOZZLE _____

ATOM. PRESSURE 35 PSI PATTERN _____

TEMP: _____ 80 °F R.H. _____

TEST SUMMARY

EFFICIENCY AVE. _____ INITIAL _____

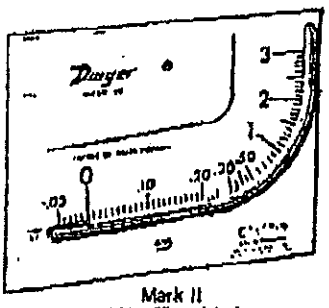
PAINT LOAD CAPACITY _____ LBS @ _____

Dwyer Instructions

FOR

MARK II

MOLDED PLASTIC MANOMETERS



Mark II
Model No. 25 molded plastic manometer.

Installation

Locate the Mark II on a convenient vertical surface. The installation should not be exposed to strong chlorine atmospheres or solvents such as benzene, acetone, carbon tetrachloride, etc. The instrument is suitable for total internal pressures up to 10 PSI and ambient temperatures of 140° F. DO NOT EXCEED THESE LIMITS!

Drill two ⅛" or 9/64" holes on a vertical line 3 15/16" apart. Install gage with self-tapping screws provided, turning the screws down snug, but not tight. Adjust the gage until the bubble is centered in the spirit level. Tighten the mounting screws; check to be sure the instrument remained level and relevel as necessary. To adapt gage for portable use, order optional A-812-Portable Stand.

Filling

Back out (turn counter clockwise) the zero adjust knob until it stops; then turn in approximately three full turns so that there is room for adjustment in either direction. Remove the fill plug and fill with gage fluid until fluid is visible in vicinity of zero on scale. Caution: Use .826 specific gravity red gage oil for Gage Nos. 25, 27, MM-80 and M-700 Pa. Use 1.0 specific gravity blue oil for Gage Nos. 26, 28 and MM-180. Adjust for exact zero setting with zero knob and replace fill plug. If the unit is overfilled to the extent that there is insufficient zero adjustment to accommodate it, the excess oil can be removed by inserting a pipe cleaner through the fill port and blotting up the excess.

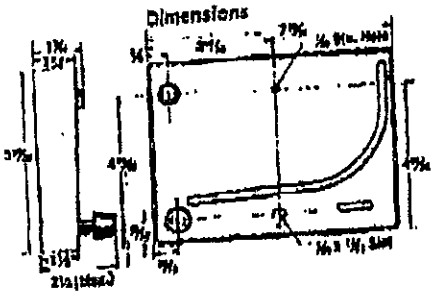
An eight foot length of double column plastic tubing is included with the gage along with adaptors for connection to ⅛" NPT fittings or sheet metal ducts. Connect the tube with red code stripe to the high pressure (left) connection at top of gage and to the positive or more positive pressure to be sensed. The low pressure (right) connection should similarly be connected to the uncoded tube and it in turn to the negative or more negative pressure to be sensed.

Maintenance

Check oil level occasionally and adjust zero knob as required. Be sure all pressure is removed by disconnecting tubing at top of gage before adjusting zero knob. Add oil only when necessary. Use Dwyer red or blue oil only — other fluids may damage the gage. Clean with a soft cloth using a little pure soap and water. Use of a small brush will aid in cleaning the knobs. Avoid cleaning fluids and liquid soaps which may have chlorinated solvents in them as they may damage the gage.

DWYER INSTRUMENTS, INC.
P. O. BOX 373 • MICHIGAN CITY, INDIANA 46360, U.S.A.
Telephone 219/879-8900
Fax 219/872-9057 Telex 25918

MARK II MANOMETER INSTRUCTIONS



APPLICATION DATA

Draft Gage

Run from pipe, ¼" or larger, from source of draft to a point within five feet of gage. Provide a means for periodic clean-out to remove dust accumulation. Make gage connection to right hand connector.

Static Pressure Indicator

Air velocities of 1500 fpm or greater are a possible source of error. For greater accuracy, static pressure tips should be installed, with the tips directed into the air flow. If static pressure tips are not used, make connections enter the duct perpendicular to the air stream and finish off smooth on the inside.

Air Filter Gage

Mount gage within three feet of filter bank and install a tubing adapter on each side of the filter element. Run the tube from the fitting on the discharge side of the filter to the right gage connection and the tube from the other side of the filter to the left gage connection. Remove paper from back of green and red arrows and install adjacent to indicating tube to indicate clean and dirty filter readings.

Air Velocity Meters

A pilot tube is required for air velocity indications and care must be taken in installation to insure accuracy. Select a location for the pilot tube with smooth, straight sections of duct at least four diameters in length both upstream and downstream. Install with the tube centered in the duct and the tip directed into the air stream. Connect the right angle pitot tube fitting to the right gage connection. Connect the straight pitot tube connection to the left gage connection. The velocity reading now indicated on the gage is the center or maximum velocity. For average velocity across the full area of the duct multiply by a factor of .9 The velocity indicated is for dry air at 70° F., 29.9" barometric pressure and a resulting density of .075-cu./ft. For variations from these standard conditions, corrections may be based upon the following data.

AIR VELOCITY CALCULATIONS:

$$\text{Air Velocity} = 1096.2\sqrt{\frac{Pv}{D}}$$

where Pv= velocity pressure in inches of water

D=Air density in #/-cu. ft.

$$\text{Air Density} = 1.325 \times \frac{Pb}{T}$$

where Pb=Barometric Pressure in inches of mercury

T =Absolute Temperature (indicated temperature °F plus 460)

Flow in cu. ft. per min.= duct area in square feet x air velocity in ft. per min.

OPERATING RANGES

No.	Range	Fluid
25	0-5 In. W.C.	.826 sp. gr. red oil
26	0-7 In. W.C.	1.0 sp. gr. blue oil
M-50	0-50 M.M. W.C.	.826 sp. gr. red oil
M-180	0-180 M.M. W.C.	1.0 sp. gr. blue oil
M-100 Pa	10-0-100 Pascals	.826 sp. gr. red oil
27 *	0-7,000 fpm	.826 sp. gr. red oil
28 *	0-10,500 fpm	1.0 sp. gr. blue oil

* Nos. 27 and 28 require pitot tube at additional cost. See Bulletin H-100.

67-446218-09

DWYER INSTRUMENTS, INC.
P.O. Box 373, Michigan City, Ind. 46360

MARK II™ MOLDED PLASTIC MANOMETER

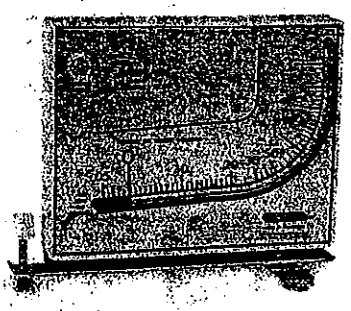
- Measures low positive, negative, or differential air and gas pressures
- Ranges: 0 to 3" WC (No. 2T650), 0 to 7" WC (No. 3T292)
- Typical applications: dust collection systems, noxious fumes/airborne particulate exhaust systems, and building HVAC filter banks
- Mounts on any vertical surface
- Zero adjustment knob and built-in level indicator
- Virtually indestructible molded plastic
- ±3% full scale accuracy, maximum working temperature, 140°F
- Maximum internal working pressure, 10 psi
- Includes 2 static pressure taps, 8 ft. of double column plastic tubing, mounting screws, red indicating fluid used with No. 2T650/blue indicating fluid used with No. 3T292, red and green pointer flags

No. 2T650. ❶ Dwyer brand (25). Shpg. wt. 1.1 lbs. Each.....**$24.57**

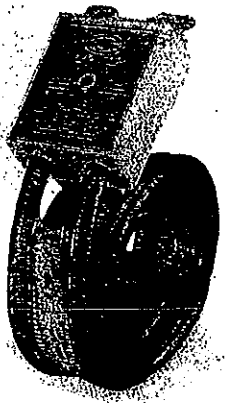
No. 3T292. ❶ Dwyer brand (26). Shpg. wt. 1.1 lbs. Each.....**$47.00**

No. 1TC33. Stand for No. 2T650 and 3T202 Manometers. Dwyer brand (A612). Shpg. wt. 1.0 lbs. Each.....**$16.43**

❶ These products are covered by OSHA Hazard Communication Standard, and Material Safety Data Sheets (MSDS) are available. See page opposite inside back cover.



No. 2T650 Shown Mounted on Stand (No. 1TC33)



No. 2T971

SLACK-TUBE® MANOMETERS

- Measures positive, negative, or differential pressure in inches of water column
- Determines velocity and static pressures for leakage, fan/blower tests, calibrating control devices, and other applications; to check gas pressure, order No. 3T293
- Magnetic clips firmly hold to any steel surface
- Roll up for easy storage
- Center mounted scale provides sliding zero adjustment between columns
- Use 3/16" I.D. hose (not supplied)
- Rapid shut-off tubing connections retain fluid in manometer
- Has overpressure safety traps in the top of both columns
- Can use tap water as the indicating fluid
- Rated total pressure: 50 psi intermittent, vacuum not to exceed 20" Hg
- 130°F maximum ambient temperature
- Includes carrying case, one bottle of fluorescein green color concentrate with wetting agent

Operating Range (In.)	SlackTube Length (In.)	Dwyer Model	Stock No.	Each	Shpg. Wt.
4-0-4	8	1211-8	3T380	$35.25	1.5
6-0-6	12	1211-12	3T381	36.98	1.7
8-0-8	16	1211-16	3T382	38.75	1.2
12-0-12	24	1211-24	2T971	40.78	1.4
18-0-18	36	1211-36	3T404	43.00	2.0
24-0-24	48	1211-48	3T383	51.48	2.2
30-0-30	60	1211-60	3T384	53.25	2.4
36-0-36	72	1211-72	3T385	63.25	1.0
60-0-60	120	1211-120	3T386	57.35	2.0

MEASUREMENT OF PRESSURE WITH A MANOMETER

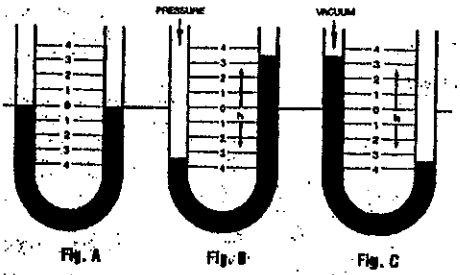


Fig. A Fig. B Fig. C

The simplest form of a manometer is a U-tube half filled with liquid. Both ends of the tube are open and the liquid is at the same height in each leg (Fig. A). When positive pressure is applied to one leg, the liquid is forced down in that leg and up in the other. The difference in height "h", which is the sum of the readings above and below zero, indicates the pressure (Fig. B). When a vacuum is applied to one leg, the liquid rises in that leg and falls in the other. The difference in height "h", which is the sum of the readings above and below zero, indicates the amount of the vacuum (Fig. C).

CATALOG
STACEY
1-800-323-0620